

***STAFF REPORT***

***17***

**CASE NUMBER:** **S.U.P. 09-206 CC** **L.U.C.B. MEETING:** **May 14, 2009**

**LOCATION:** North side of Bulen Huse Road; +/-840 feet west of Coleman Road

**COUNCIL DISTRICT(S):** Unincorporated Shelby County

**OWNER OF RECORD:** Marshall Gordon

**APPLICANTS:** Tower Ventures V, LLC

**REPRESENTATIVE:** Tower Ventures V, LLC

**REQUEST:** Special use permit to allow a cell tower one-hundred ninety-five(195') feet in height with the ability to support six(6) sets of antennae arrays

**LEASED AREA:** 4,900 sq. ft. of 122.50 Acres

**EXISTING LAND USE & ZONING:** Vacant land used for tree farming in Single Family Residential(R-S10) District zoning.

**SURROUNDING USES AND ZONING:**

**North:** Large tracts of vacant land, farmland and single family homes on large parcels in Single Family Residential(R-S10) District.

**East:** Large tracts of vacant farmland and single family homes on large parcels in Single Family Residential(R-S10) District.

**South:** Large tracts of vacant land in Single Family Residential(R-S10) District and single family homes in 'Willow Lake Subdivision' in Lake Las Cruces Planned Development(P.D. 00-313 CC).

**West:** Large tracts of vacant land, single family home and an MLGW Transmission & Gas Easement 150 feet in width in Single Family Residential(R-S10) District.

**OFFICE OF PLANNING AND DEVELOPMENT RECOMMENDATION:**

***Approval with Conditions***

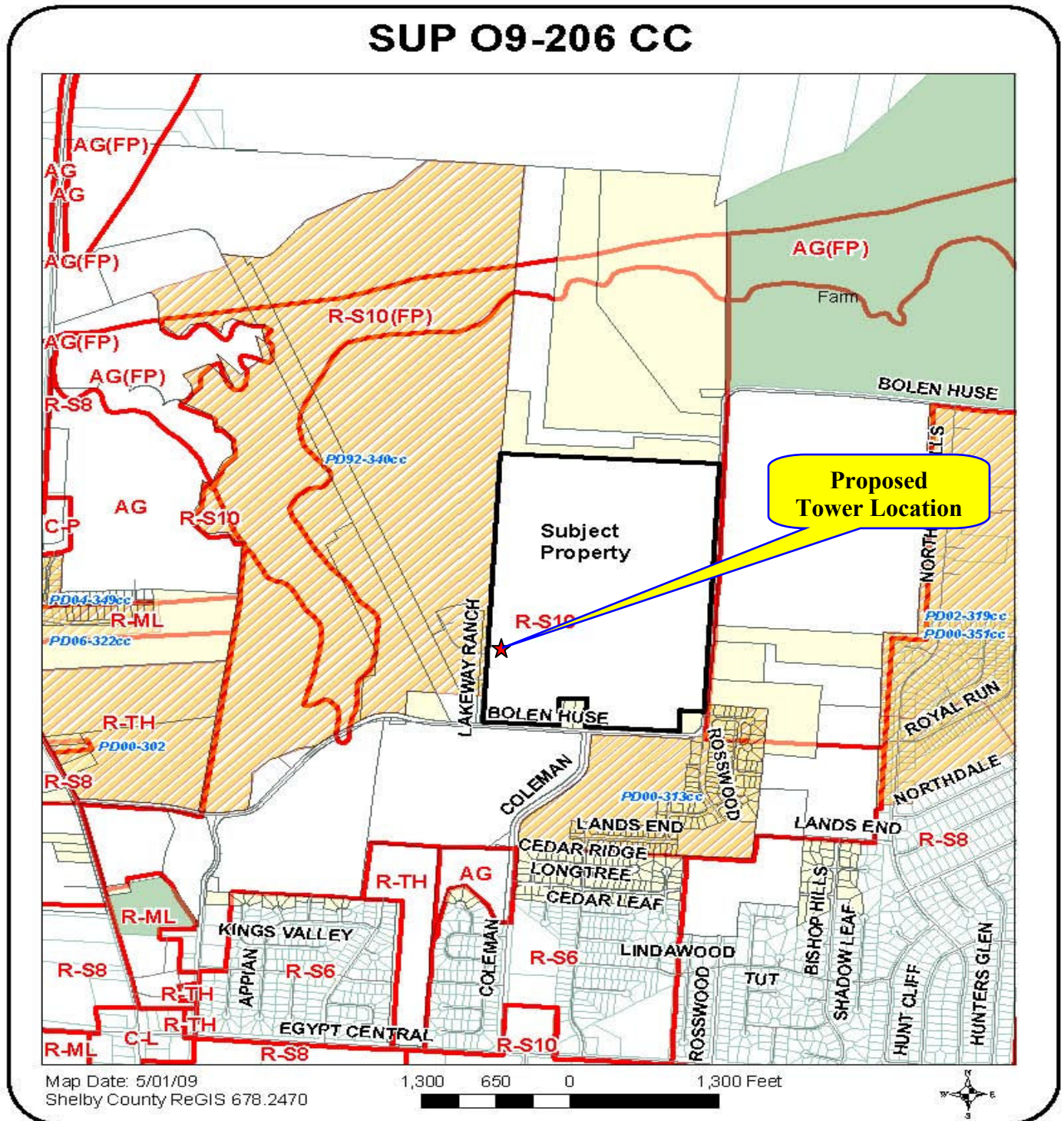
**Staff:** *Brian Bacchus*

**E-mail:** [brian.bacchus@memphistn.gov](mailto:brian.bacchus@memphistn.gov)

***CONCLUSIONS:***

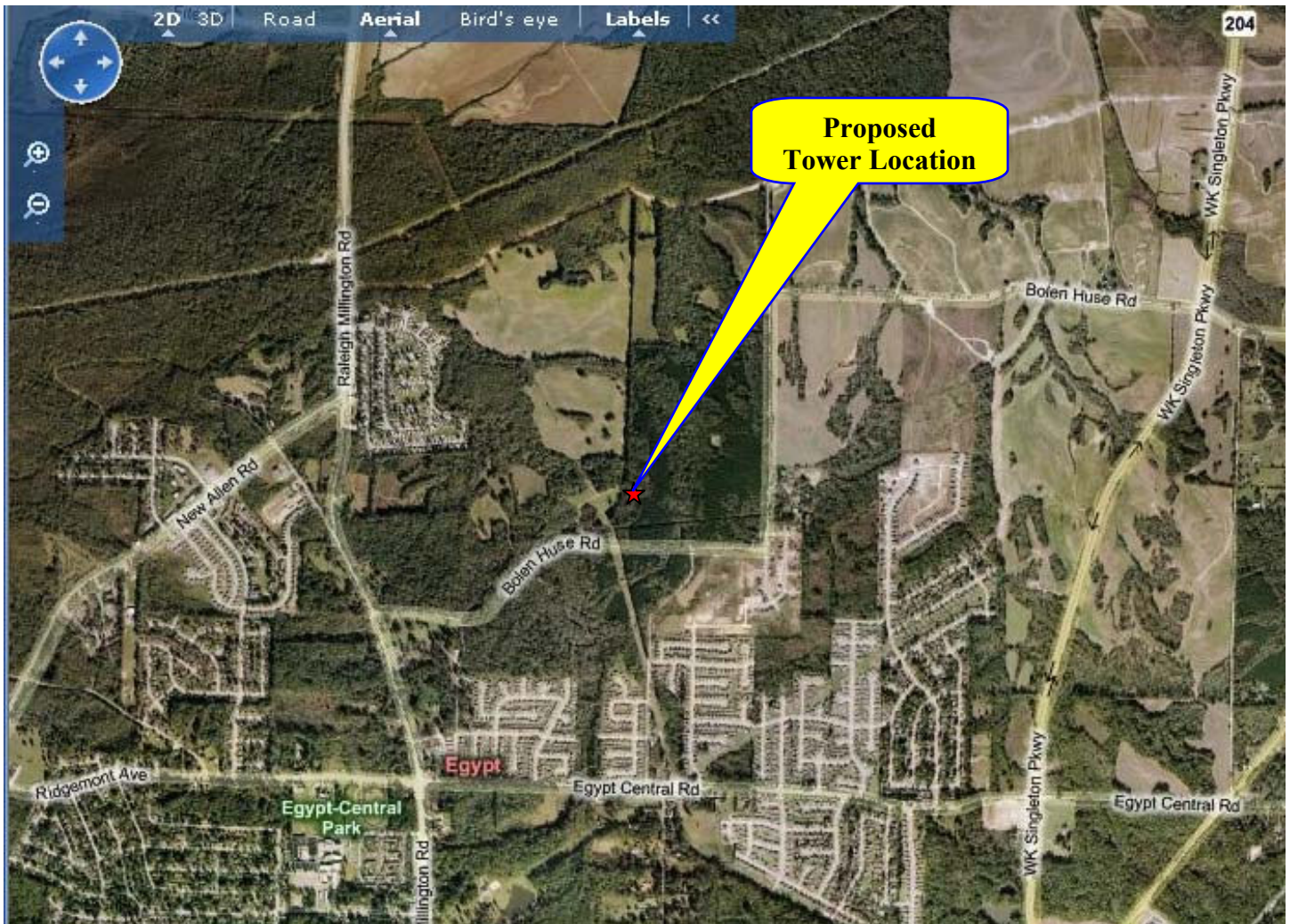
1. The request is for a special use permit to allow the construction of a cell tower 195 feet in height with the ability to support six(6) sets of antennae arrays in Single Family Residential(R-S10) District zoning in the Raleigh-Egypt Community in Raleigh-Bartlett Planning District.
2. The greatest visibility will be from the west side of the property where this tract adjoins a vacant parcel of land and a major transmission and utility easement with limited visibility from the public road.
3. The proposed location of this tower minimizes the affect upon residential land use and zoning with the tower being tucked away in mature trees with minimal visibility to surrounding residential land use and zoning.
4. The mature trees along the roadways provide a natural buffer from single family residential land use and zoning. The ingress/egress easement provided to the tower site is parallel to the west property line and should be modified to provide a curvilinear private drive to minimize the view of the tower compound from the public road.
5. The immediate area has no other cellular towers within the required one-quarter( $\frac{1}{4}$ ) mile spacing requirement. Therefore, the proposed location complies with additional standards for CMCS facilities allowed by special use permit in the Zoning Ordinance.

**SUP O9-206 CC**



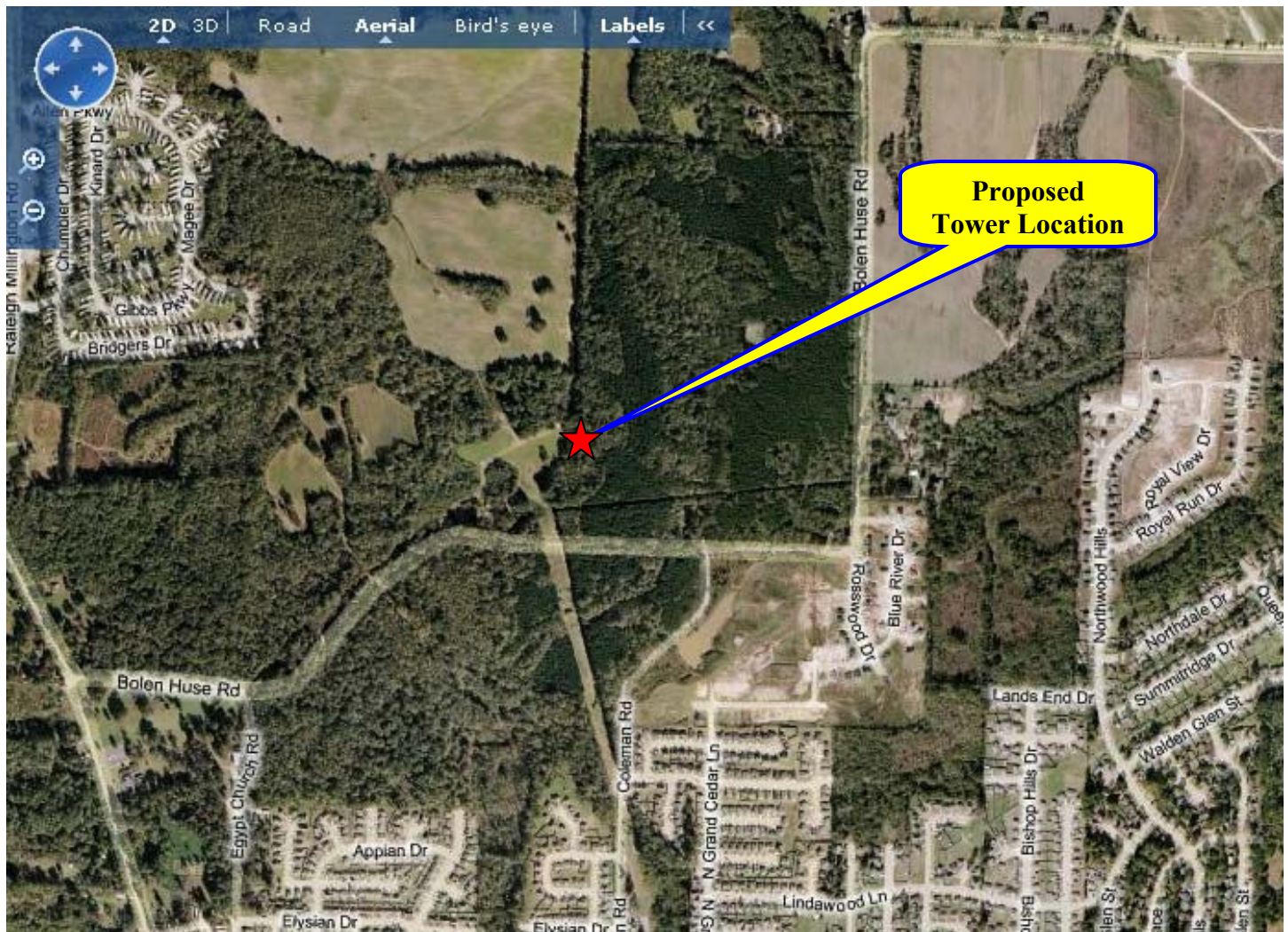


**SURROUNDNG AERIAL VIEW:**





**SUBJECT PROPERTY AERIAL VIEW:**



[illegible]



# TOWER ELEVATION PLAN



**TransAmerican**  
Piper (Franklin, Inc.)  
3031 Kelly Lane  
Houston, Texas 77068



**PAUL J. FORD AND COMPANY**  
STRUCTURAL ENGINEERS  
250 East Broad Street, Suite 1500, Columbus, Ohio 43215  
(614) 221-6679 Fax: (614) 448-4105 www.PJFweb.com

JOB DATA			
Page 1 of 1	Job No.	44406-1418	
By LGR	Design No.	06-2438	
Chkd By	Date	09-15-2006	
Pole	195-FT MONOPOLE	Rev. No.	Rev. Date
Site	ALCORN CO., MS		
Owner			
Ref. No.	P.J.F. JOB #44406-0478		
Design	70 MPH / 51 MPH +1/2" RADIAL ICE ACCORDING TO TIA/EIA-222-F 1996		

## PRELIMINARY DESIGN - NOT FOR FABRICATION

LOAD CASES			
CASE 1	70 MPH WITH NO ICE	DESIGN WIND	
CASE 2	51 MPH WITH 1/2" RADIAL ICE	REDUCED WIND WITH ICE	
CASE 3	50 MPH WITH NO ICE	OPERATIONAL WIND	

## POLE SPECIFICATIONS

Pole Shape	Type: 18-SIDED POLYGON
Top	0.207692 IN/FT
Shaft Steel	ASTM A572 GRADE 65
Base PL Steel	ASTM A572 GRADE 60 (60 KSI)
Anchor Rods	2-1/4" x 7'-0" LONG #18J ASTM A615 GRADE 75

## ANTENNA LIST

No.	Elev.	Description
-	TOP	5/8" LIGHTNING ROD
1-12	195.00	(12) 60" X 12" X 3" PANEL ANTENNA
-	185.00	12' LOW PROFILE PLATFORM
13-24	185.00	(12) 60" X 12" X 3" PANEL ANTENNA
-	185.00	12' T-ARM MOUNTS
25-36	175.00	(12) 60" X 12" X 3" PANEL ANTENNA
-	175.00	12' T-ARM MOUNTS
37-48	165.00	(12) 60" X 12" X 3" PANEL ANTENNA
-	165.00	12' T-ARM MOUNTS
49-60	155.00	(12) 60" X 12" X 3" PANEL ANTENNA
-	155.00	12' T-ARM MOUNTS

STEP BOLTS FULL HEIGHT FROM 9"-8 ABOVE BASE PLATE.  
ANTENNA FEED LINES RUN INSIDE OF POLE.

Elevation	70 MPH WIND		50 MPH WIND	
	Lateral Deflection (inches)	Rotation (away) (degrees)	Lateral Deflection (inches)	Rotation (away) (degrees)
TOP	194.9	9.330	99.0	4.759

## SHAFT SECTION DATA

Shaft Section	Section Length (feet)	Plate Thickness (in.)	Lap Splice (in.)	Diameter Across Flats (inches)	
				@ Top	@ Bottom
1	39.00	0.1875	39.00	18.000	26.100
2	39.50	0.2500	39.00	25.050	33.254
3	42.00	0.3125	51.00	31.871	40.594
4	42.00	0.3125	60.00	38.931	47.654
5	51.00	0.3750	72.00	45.783	56.375

NOTE: DIMENSIONS SHOWN DO NOT INCLUDE GALVANIZING TOLERANCES

## UNFACTORED BASE REACTIONS

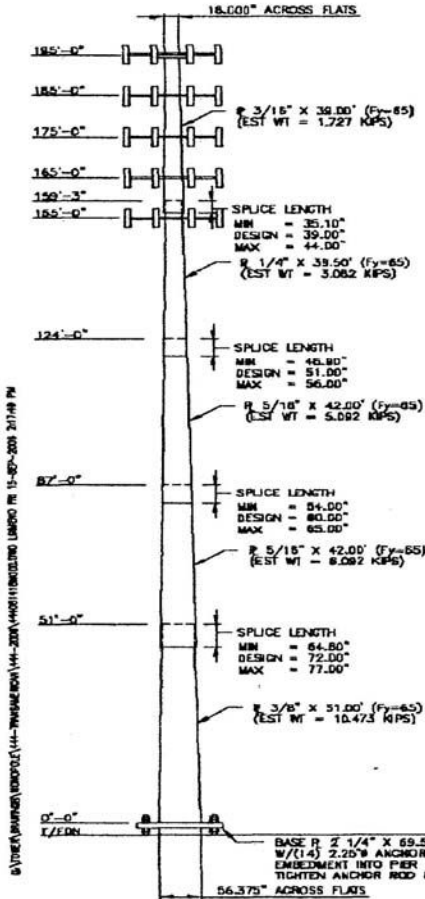
MOMENT = 3275 ft-kips

SHEAR = 22.7 kips

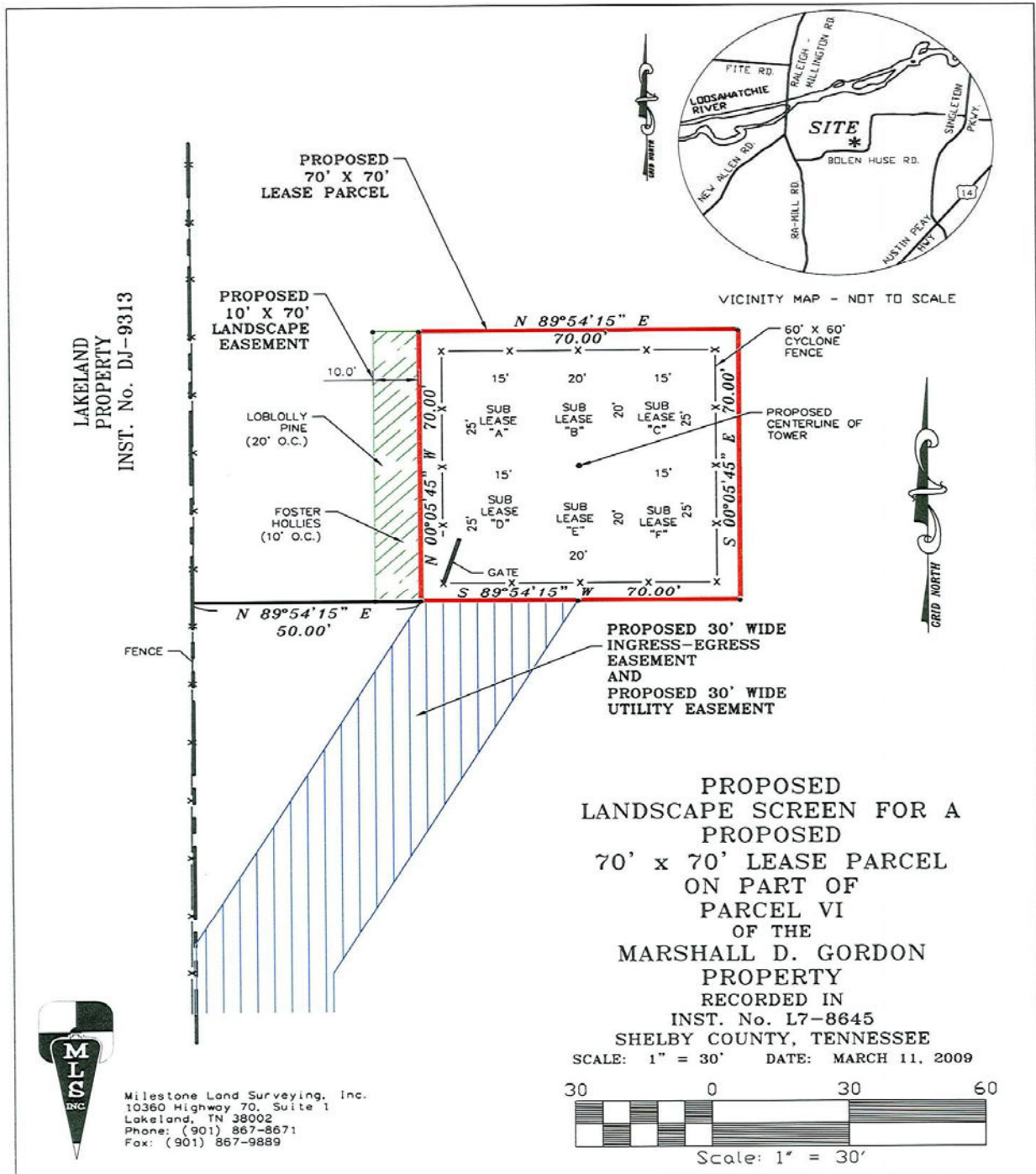
AXIAL = 35.8 kips

EST. SHAFT + BASE P. WT. = 28.0 kips

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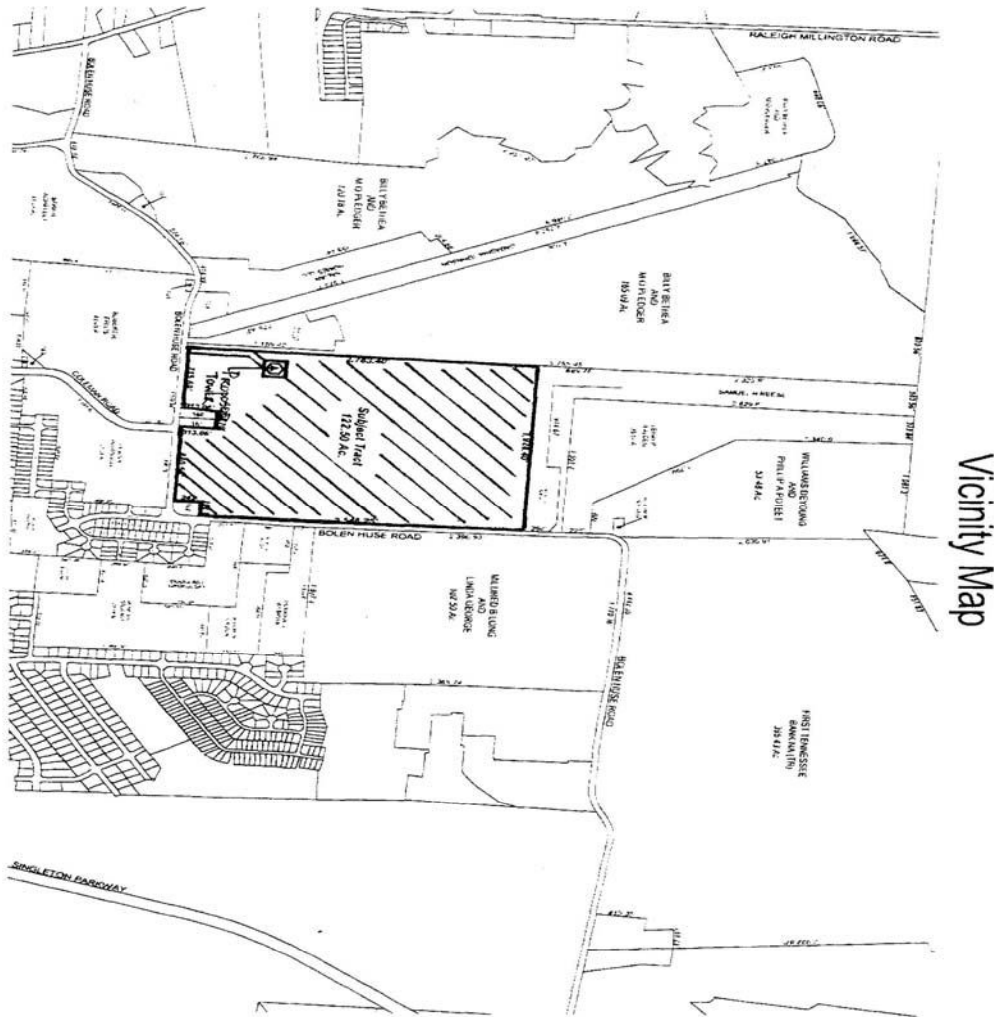


**LANDSCAPE & SCREENING PLAN:**





**VICINITY & OWNERSHIP MAP:**



Vicinity Map

O.P.D. Case Number S.U.P. 09-206 CC

## ***STAFF ANALYSIS:***

### **Site Description**

The subject property is a leased area containing 4,900 square feet of 122.50 acres of vacant land partly used as a tree farm. The site is located at the north side of Bolen Huse Road just west of Coleman Road in the northwest section of the Raleigh-Bartlett Planning District. The site is a heavily wooded tract of land at the northwest corner of Bolen Huse Road approximately one-half( $\frac{1}{2}$ ) mile east of Raleigh-Millington Road. There are no other structures located on this tract of land with an eight(8) foot wide overhead utility easement.

The proposed tower site is a leased area 70'x70' located approximately 800 feet north of Bolen Huse Road with an ingress/egress easement thirty(30) feet in width along the west property line. The leased area is a total of 4,900 square feet surrounded by a cyclone fence six(6) feet in height and setback from the west property line a distance of fifty(50) feet. An additional 700 square feet of leased area is proposed for a 10'x70' landscape easement consisting of one(1) row of loblolly pines and foster hollies.

### **Area Overview**

The surrounding land use and zoning is predominantly large vacant tracts of land in Single Family Residential(R-S10) District to the west, including a major transmission and utility easement 150 feet in width. An Outline Plan was approved in February, 1993 for Lakeway Planned Development(P.D. 92-340 CC) and recorded in February, 1997. This Outline Plan was primarily a residential planned development with open spaces for a greenbelt system along the Loosahatchie River, including lakes and recreational facilities. However, the five(5) year time limit has expired and the land reverts back to R-S10 zoning.

The land use north of the entire tract is primarily single family homes on estate lots in R-S10 District zoning and vacant farmland to the east and northeast in Agricultural(AG) District zoning. There are also single family homes on estate lots in AG District zoning along the east side of Bolen Huse Road. This area is rural in character with single family homes dispersed along both sides of a rural roadway. The land use south and across Bolen Huse Road is large vacant wooded tracts of land approved for single family residential development in Lake Las Cruces Planned Development(formerly Bolen Ridge P.D.00-313 CC). However, at the immediate intersection of Rosswood Drive and Bolen Huse Road is 'Willow Lake Subdivision' within this planned development approved and developed for 111 single family homes. This development is approximately one-quarter( $\frac{1}{4}$ ) mile from the proposed tower location.

**Request vs. Visibility**

The request is for a special use permit to allow the construction of a cell tower 195 feet in height with the ability to support six(6) sets of antennae arrays in Single Family Residential(R-S10) District zoning in the Raleigh-Egypt Community in Raleigh-Bartlett Planning District. The site will be a leased area of 4,900 square feet in area and part of a much larger tract of land partially used for a tree farm of loblolly pines. The proposed tower will be a principal structure since there are no other structures on this tract of land.

The tower is setback from Bolen Huse Road a distance of 800 feet and 50 feet from the west property line. The tower compound will be enclosed in a cyclone fence with landscaping at the west side to include loblolly pines and foster hollies to screen the base of the tower. The greatest visibility will be from the west side of the property where this tract adjoins a vacant parcel of land and a major transmission and utility easement with limited visibility from the public road. The zoning ordinance allows cell towers to be located in residential districts, but requires a special use permit in Single Family Residential(R-S10) District zoning.

The proposed location of this tower minimizes the affect upon residential land use and zoning with the tower being tucked away in mature trees with minimal visibility to surrounding residential land use and zoning. The view from Bolen Huse Road and single family homes in 'Willow Lake' subdivision from the southeast and 'Evening Shade' subdivision from the south will be minimal. The mature trees along the roadways provide a natural buffer from single family residential land use and zoning. The ingress/egress easement provided to the tower site is parallel to the west property line and should be modified to provide a curvilinear private drive to minimize the view of the tower compound from the public road. Also, the private drive should be gated so that access cannot be allowed onto the tower property by unauthorized personnel.

The visibility from single family homes in 'Evening Shade' subdivision and 'Willow Lake' subdivision in Lake Las Cruces Planned Development will be minimal, because the distance is approximately one-quarter( $\frac{1}{4}$ ) mile south and east of the proposed tower location. The applicant proposes to enclose the equipment at the base of the tower with a cyclone fence six(6) feet in height with loblolly pines planted twenty(20') feet on center and foster hollies planted ten(10) feet on center at the west side of the ground lease area. The landscape and screening requirements shall be installed before the tower is launched for operation.

The immediate area has no other cellular towers within the required one-quarter( $\frac{1}{4}$ ) mile spacing requirement. Therefore, the proposed location complies with additional standards for CMCS facilities in the Zoning Ordinance subject to site plan review and approval by special use permit. However, in residential zoning districts the applicant has to provide documentation for the need for wireless communication service in an area and to also state there are no existing or pending structures in the immediate area to accommodate the planned equipment. The applicant has provided this documentation to satisfy those concerns and the land use survey performed by staff did not yield reasonable and practical alternatives for a tower of this height to accommodate wireless communications equipment to be located in the Raleigh-Egypt community.

***RECOMMENDATION: Approval with Conditions***



***SITE PLAN CONDITIONS:***

A *Special Use Permit* is hereby authorized to '*Tower Ventures V, LLC*' to allow a '*CMCS communications tower one-hundred ninety-five(195') feet in height*' on property located at the '*north side of Bolen Huse Road; +/-840 feet west of Coleman Road*' in accordance with an approved '*site plan*' and the following supplemental conditions:

- I. Uses Permitted: A CMCS communications tower one-hundred ninety-five(195') feet in height with the ability to support six(6) sets of antennae arrays.
- II. Bulk Regulations:
  - A. The setback from Bolen Huse Road shall be a minimum distance of 800 feet from tower centerline.
  - B. The setback from the west property line shall be a distance of 85 feet from tower centerline.
- III. Access & Circulation:
  - A. The design and location of curb cuts shall be subject to review and approval by County Engineer.
  - B. The private drive shall be constructed to provide a curvilinear design a minimum width of twenty-two(22) feet of pavement.
  - C. A gate with fencing and bollards shall be provided at the private drive entrance for unauthorized personnel.
- IV. Landscaping and Screening:
  - A. All landscaping and screening shall be in accordance with the 'Landscape Plan' and installed prior to launch and operation of the tower and equipment.
  - B. Required landscaping shall not be placed on or under any utility easement.
- V. Signs:
  - A. No signs shall be allowed, except for the necessary decal sign for displaying the name, address and phone numbers of the owner and operators of the facilities. The decals shall be placed on and outside the fence.
  - B. No temporary or portable signs shall be permitted.
- VI. A CMCS communications tower one-hundred ninety-five(195) feet in height shall be allowed with the ability to support six(6) sets of antennae arrays for the above mentioned user and maintained in accordance with site plan conditions subject to administrative site plan review and approval and no zoning violations.

**GENERAL INFORMATION:**

**Street Frontage:** Bolen Huse Road-----thirty(30) foot wide easement.

**Planning District:** Raleigh-Bartlett

**Census Tract:** 205.30

**Zoning Atlas Page:** 1640

**Parcel ID:** D0147 00002C

**Zoning History:** The Single Family Residential(R-S10) District zoning of the property dates to the adoption of the 1980 zoning map amendments.

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**DEPARTMENTAL COMMENTS:**

*The following comments were provided by agencies to which this application was referred:*

**City Engineer:** No comments received as of 5/08/09.

**County Engineer:** No comments received as of 5/08/09.

**Shelby County Fire:** No comments received as of 5/08/09.

**Memphis & Shelby County Health Department:** The Water Quality Branch has no comments.

**Shelby County Board of Education:** No comments.

**Construction Code Enforcement:** No comments received.

**Memphis Light, Gas and Water:**

*MLGW has reviewed the referenced application, and has no objection, subject to the following conditions:*

- **It is the responsibility of the owner/applicant** to pay the cost of any work performed by MLGW to install, remove or relocate any facilities to accommodate the proposed development.
- **It is the responsibility of the owner/applicant** to identify any utility easements, whether dedicated or prescriptive (electric, gas, water, CATV, telephone, sewer, drainage, etc.), which may encumber the subject property, including underground and overhead facilities. No permanent structures will be allowed within any utility easements.
- **It is the responsibility of the owner/applicant** to comply with the **National Electric Safety Code (NESC)** and maintain minimum horizontal/vertical clearances between existing overhead electric facilities and any proposed structures.

**Memphis Light, Gas and Water(Continued):**

- **Landscaping is prohibited** within any MLGW utility easement without prior approval. It is the responsibility of the owner/applicant to comply with Memphis/Shelby County Zoning Ordinance - Landscape and Screening Regulations.
- **It is the responsibility of the owner/applicant** to contact **TN-1-CALL @ 1.800.351.1111**, before digging, and to determine the location of any underground utilities including electric, gas, water, CATV, telephone, etc...
- **It is the responsibility of the owner/applicant** to submit a detailed plan to MLGW Engineering for the purposes of determining the availability and capacity of existing utility services to serve any proposed or future development(s).
- **It is the responsibility of the owner/applicant** to contact MLGW engineering to determine if system improvements may be required and any related cost:
  - MLGW Engineering - **Residential Development:** 528-4858
  - MLGW Engineering - **Commercial Development:** 367-3343
- **It is the responsibility of the owner/applicant** to pay the cost of any utility system improvements necessary to serve the proposed development with electric, gas or water utilities.

**AT&T:**

AT&T has no comments.

**OPD-Regional Services:**

Currently this section of Bolen Huse Road is a two (2) lane roadway with forty(40') feet of right-of-way and twenty two (22') feet of pavement. According to the Memphis Urban Area 2030 Long-Range Transportation Plan, this section of Bolen Huse Road is classified as a "Local Collector" roadway on the "Functional Classification" map. The "Existing Plus Committed Network" illustrates that there are no improvements programmed for this section Bolen Huse Road. The "Congested Roadway Network" illustrates that there is no congestion along this section of Bolen Huse Road.

**Traffic Stations:**

Rec	Station Number	County	Location	Year	Annual Average Daily Count	Route Number
1	000923	Shelby	BOLEN HUSE RD.	2008	582	
2	000923	Shelby	BOLEN HUSE RD.	2007	657	
3	000923	Shelby	BOLEN HUSE RD.	2006	568	
4	000923	Shelby	BOLEN HUSE RD.	2005	569	

**OPD-Plans Development:**

No comment.

**Shelby County Conservation Board:**

No comments received.

**Neighborhood Associations/Organizations:**

*Raleigh Community Civic Club:*

*No comments received as of 5/08/'09.*

*Springhill Community Civic Club:*

*No comments received as of 5/08/'09.*

**Staff:** bb



**From:** Lou Katzerman [lou@TOWERVENTURES.COM]  
**Sent:** Thursday, May 07, 2009 12:25 PM  
**To:** branhamjoseph@bellsouth.net  
**Cc:** Bacchus, Brian; Craig Royal  
**Subject:** FW: Case# S.U.P. 09-206 CC  
Mr. Branham,

Thank you for your comments and I did call you and leave a message yesterday. 1<sup>st</sup>, since the tower height is less than 200', the FAA does not require the tower to be lighted. Once I receive the FAA stating "no lighting required", I will forward you a copy.

2<sup>nd</sup>, yes, we will put a gate at the beginning of the site access rd. In addition, we will add some bollards or additional fencing to keep people from driving around the gate.

If you have any additional questions, please call me at 901.239.3892.

Regards,

Lou

**From:** JOSEPH BRANHAM [mailto:branhamjoseph@bellsouth.net]  
**Sent:** Tuesday, May 05, 2009 2:25 PM  
**To:** Bacchus, Brian  
**Subject:** Case# S.U.P. 09-206 CC  
Brian Bacchus  
Office Of Planning and Development  
125 N. Main St Ste 468  
Memphis, TN 38103

Mr. Bacchus,

I have received the notice on a proposed cell tower near my neighborhood. I only have a couple of concerns.

First, I would appreciate it if they use red colored lights at night instead of white. If they are white then I would oppose the construction of this tower.

Secondly, I am concerned about the entrance road/drive to the facility. Most important, perhaps a fence or gate that would keep this area closed off to trespassers. We get a lot of people on Bolen Huse Rd, and Coleman Rd that dump garbage, used tires, furniture, etc. I hope that this entrance to the tower does not provide yet another secluded place for them (trespassers) to dump in our community. We have enough problems already.

Outside of these concerns, I have no other cause to oppose the permit.

Thank you for your attention.  
Sincerely,

Joseph R. Branham  
4636 Willow Hill Ln.  
Memphis, TN 38128